ABSTRACT

An adaptive fuel limit function (52) for protecting an internal combustion
engine. The adaptive fuel limit function is a learning function responsive to trends in
an engine performance parameter such as compensated fuel consumption per unit of
power produced (62). The engine performance parameter is processed through a low
pass filter (64) to allow changes in a fuel limit signal (54) in response to gradual
changes in the fuel demand, such as may be due to wear in the engine, while blocking
changes in the fuel limit signal in response to sudden changes in the fuel demand,
such as may be due to a cylinder failure. The difference between the input and the
output of the low pass filter may be processed to identify a failure level (88) for
providing an alarm function distinct from the learning function.